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THE ORIGIN AND THE CHRONOLOGY OF THE CLIPPER SHIPS

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INTRODUCTION

There has been too much mystery apparent concerning the origin of the clipper ships. Likewise, too many different vessels have been honored by the designation of "the first clipper ship".

The clipper ship did not spring from the mind of one man, nor from the slipways of one shipyard. This type of vessel evolved from the fast ships of two generations previous to its time, namely the American privateers of the Revolutionary War. From this type of fast craft there arose in turn five succeeding designs - each modified to suit the demands of certain trades - before the big beautiful California clippers of the 1850's came into being.

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Certain trades demanded speed, and the merchants and passengers were willing to pay for it. Thus the shipowners voiced their demands to the shipbuilders for speedy vessels. Also the captains, who had the best opportunities to see how a ship behaved whether close-hauled or running free, voiced their conclusions as to how a ship's midship section and run should appear. Well known captains of wide experience offered important suggestions towards or entirely designed six of the twelve pre-clipper ships. However, every innovation of hull design or rig was well spattered with the pessimistic prophecies of conservative builders and old "shellbacks".

Speed was always a desirable quality in merchant ships, whether needed to run from pirates, privateers, and Government vessels or to make more voyages in a year and thus pay off a greater return on the investment in ship and cargo. But when the quality of speed became overwhelmingly pre-eminent above all other characteristics of ship design, then the American clipper ship in all its glory burst forth from the boards of designers and the slipways of the shipyards.

The point to be emphasized is the fact that there was a continuity of ship design through the decades, each type being modified to serve the demands of trades and suit the ideas of the captains and the owners of the ships.

If any small, carefully selected group of men was most instrumental in initiating the American clipper ship era, the writer would select for this honor Captain Robert Bennet Forbes, John W. Griffiths, William H. Webb, Captain Nathaniel B. Palmer, and Captain Robert H. Waterman.

PART I.

By the end of the American War of Independence in 1782, there had developed a well-recognized type of vessel known as the "Virginia-built privateer" which was designed primarily for speed and maneuverability, as carrying capacity was of little importance. After the period of hostilities this same type of vessel, though of a somewhat smaller size, became popular along the Atlantic coast in the role of pilot boats, and the term "Norfolk pilot built" or "pilot boat construction," became familiar to all homeward bound mariners of the Atlantic ports. Pilot boats are singular in that they are the only commercial vessels designed to sail on a fixed draft.

During the War of 1812 this same class of vessel, though of a larger size as a rule, was very successfully employed as privateers, being referred to by the term "Baltimore-built," Being the fastest ships of their day, they were profitably -

operated as smugglers, and after the outlawing of the slave trade by Great Britain in 1807, they became very popular in this trade, where they were known as "Baltimore clippers." It was in the slave trade that they reached their finest design, as this trade continued well through the 1840's due to the continuance of slavery in the Southern States, Cuba, and Brazil. These vessels were primarily schooner-rigged, but being intended for speed, almost any combination of square sails was superimposed upon the basic two-masted schooner sail plan.

During the War of 1812 an American privateer schooner (with a full equipment of square sails on the foremast) was built (most probably at New York) and launched in 1813. Her name was the "Prince de Neufchatel" and she had an extremely successful though short career in the war. She was chased by seventeen different British men-of-war at various times, but she always managed to escape due to her extraordinary speed. However she was finally captured by a squadron of three British frigates, due to the fact that she was burying herself in the rough sea by carrying too much sail in the gale that was blowing. She was sent to England, where, following the custom of the Admiralty, she was drydocked and her lines and measurements taken off. Subsequently her exact lines were reproduced in the design of the first purposely built opium clipper, the "Red Rover," a small barque launched in India in 1829. The lines of this vessel, in turn, were used in the design of many subsequent opium clippers. In 1835 the word "clipper" was used in a Calcutta newspaper in discussing the recently launched opium brig "Lady Grant."

Thus the first application of the term "Clipper" was in connection with the fast vessels of limited carrying-capacity launched from Chesapeake Bay shipyards, and characterized by flush decks, sharp dead-rise, a very fine run, and much after-drag. Subsequently the term was applied to the ships built for the opium trade between India and China, where carrying capacity was again of little importance, as the outward cargo was opium in chests, and the return one silver specie or bars and sometimes a little tea, the great bulk of the tea trade being in the hands of the East India Company until the abolition of its monopoly in China in 1834. The need for speed in the opium trade was due to the fact that more voyages (up to three in a season) would greatly increase the profit to the owners, and also the fact that the Northeast monsoon with its consequent current required a fast ship, and one that could work to windward readily; likewise the need to fight off and run from both Government (mandarin) junks and pirate junks required a fine-lined vessel with a larger sail plan than the ordinary merchant ship of the time. The opium clippers were built from 1829 to 1856, mostly in India, although the English

and Scottish yards built a few brigs and schooners for the trade, mostly by White of Cowes and Alexander Hall of Aberdeen. Most of Hall's vessels for this trade were modelled after the schooner "Scottish Maid" which was launched at his yard in 1839. The opium clipper "Gazelle" was launched by him in 1840, and had still finer lines. She made a good reputation on the China coast. In 1845 Hall launched his 150th vessel, the "Torrington", a schooner which made a great name for herself on the China coast, and paved the way for future commissions by her owners, Jardine, Matheson and Company, to Hall's yard to build tea clippers in the 1850's. Twelve opium clippers were built in the United States, besides six vessels that were former slavers and probably, therefore, Baltimore clippers. The American opium clipper-barque "Coquette" was launched in 1844 at Samuel Hall's shipyard at East Boston, and was designed from a whittled model made by Captain Robert Bennet Forbes, a man of great experience in the opium trade, both in the counting house and in command of a fast ship.

Due to the huge profits of the opium trade and the attempts of the Chinese government to suppress it, and also the extremely contemptuous manner in which the Chinese officials treated British and American merchants and officials, the First Opium War was fought, beginning in 1839 and ending victoriously for the British in 1842. By the provisions of the peace treaty five ports (Canton, Amoy, Foochow, Ningpo, and Shanghai) were opened to foreign commerce in 1845, and the island of Hong Kong was ceded to England in 1843. Previously Macao was the only port available, having been colonized and opened as a port by the Portuguese since the year 1557; also the Whampoa Anchorage near Canton was a favorite shelter. Opening the Treaty Ports allowed the tea trade to expand enormously, and by the time the war had ended over a dozen skilled and daring shipmasters began to take the fastest American ships into Oriental seas to reap the profits of the newly opened trade. Among these men were N. P. Palmer, Robert Waterman, John Land, and William H. Hayes. In this trade the most valuable cargoes went to the fastest ships, and it took a real shipmaster to get a good performance from a temperamental sailing ship.

Continuing with the evolution of the Baltimore clippers, we come to the year of 1833, when the "Ann McKim" was launched at Baltimore. Her name, her fine fittings, and the expensive finish of her workmanship were inspired by the love of Isaac McKim for his wife whom he had married 25 years previously, when he was 33 years old, and she was 19. This vessel was a full-rigged ship with the characteristic hull of a Baltimore clipper. She was a fast ship and was very well known in her day, being mentioned twice by Dana in "Two Years Before the

Mast." She was not the first Baltimore clipper to have a complete square rig for her sail plan, but in view of her later influence on ship design, the earlier square-rigged Baltimore clippers such as the "Hannibal" and the "John Gilpin" can be disregarded except as they indicate that the "Ann McKim" was not a freak production. Upon the death of Isaac McKim in 1837, she was purchased by Howland and Aspinwall of New York, who, becoming favorably impressed by her performance, commissioned (in 1843) Smith and Dimon, a shipbuilding firm of the same city to build a ship that would surpass her in speed and carrying capacity. The new ship, named the "Rainbow," was designed by John W. Griffiths, who was much impressed by the "Ann McKim" and who had developed a radically advanced theory of ship design, the principal features of which were the elimination of the head and its rails, and the introduction of virtually hollow waterlines - that is, a concave entrance - causing a very marked flare (flam) of the frames at the bows. Griffiths had previously given public lectures on his views (since 1841) and had exhibited a model illustrating his ideas. It is probable that other designers profited from his ideas, because William H. Webb launched the Canton packet "Cohota" in 1843, her lines being virtually identical with those of the "Rainbow" except for a lesser degree of dead rise. Due to the panic of 1837 the ideas inspired by the handsome appearance and fine performance of the "Ann McKim" were delayed in their materialization in a shipyard, and when the "Rainbow" finally did appear in frame, and thus her future contours made recognizable, adverse criticism appeared in such vehemence and to such a degree that several long delays ensued in her construction. However, she was finally launched in January 1845, and did not capsize as so many people had predicted would occur due to the lack of "bearing" (bouyancy) at the bow. She quickly made a reputation as a fast ship, and profiting from the lessons learned from her design and performance, Griffiths designed the "Sea Witch," which was launched in December 1846. This superb ship was ordered by Howland and Aspinwall from Smith and Dimon for the express purpose of becoming the new command of Captain Robert Waterman after he had made his record-breaking 78 day passage in the 14 year old New Orleans packet "Natchez" from Macao to New York in 1845. The "Sea Witch" was the first great clipper, if not the first clearly recognizable one, as she established several records under sail that endure to the present day.

If the Baltimore clippers were the mothers of the clipper ships, the Western Ocean packet ships were their sires, for it was this highly competitive trade that brought out the qualities in both ships and officers that were conducive to hard driving in all weather. In 1818 a small group of far-

seeing New Yorkers initiated regular sailings of the packet ships, beginning with the "James Monroe" of 400 tons, one of the four ships owned by the newly formed Black Ball line. The regularity of this service "caught on" in a short time and proved very popular with both shippers and passengers. Soon there appeared other lines, namely the Red Star, the Swallow Tail, the Dramatic, the Red Cross, the Cope (Philadelphia), and the White Diamond (Boston) line. Speed soon became highly desirable, as the fastest ships secured the most business. The "Helena" and the "Montauk", Canton packets, were typical pre-clipper ships that were the culmination of thirty years of intense competition in building ships for the North Atlantic trade. The former vessel was launched in 1841 at William H. Webb's yard in New York, the latter in 1844 at the same yard. It is not surprising that within the next ten years this same yard launched such magnificent examples of the clipper ships as the "Challenge," the "Comet," the "Invincible," the "Sword Fish", and the "Young America," besides many other fleet craft including the beautiful little-clipper-brig "Volante" which Webb launched in 1853.

To be continued.

CHESAPEAKE BAY SKIPJACK RIGGED BATEAU

Wayne B. Yarnall

The origin and development of the present day Chesapeake Bay "Skipjack" or technically, the V-bottomed "Skipjack", leg-o-mutton jib and mainsail sloop of the Chesapeake Bay area cannot be traced without refering to other types of sloops local to other regions of the Atlantic seaboard. The history of this vessel is anything but complete, but evidence as presented here is seemingly accurate and conclusive.

The V-bottom hull of the Chesapeake Bay "Skipjack" owes its parentage to the oyster fleet of the Long Island Sound. In the 1830's or 40's the oystermen of the Sound found that their dugout canoes were not profitable for oystering and therefore gradually changed to the use of the ordinary flat-bottomed skiff, fitted with a centerboard and rigged with a leg-o-mutton sail. Between the 1840's and 1850's the sailing skiff developed into the earliest type of Sharpie. The Sharpie was not changed a great deal between 1850 and 1878, when Thomas Clapham of Roslyn, Long Island began building them with a little deadrise in the extreme bow and stern, the bottom remaining flat amidships. Clapham's type became known as the Roslyn or Nonpareil type and was noted for its speed and seaworthiness regardless of the fact that it pounded in rough

water. Clapham built most of his sharpies for the yachting trade while the oyster sharpies of the Sound were built by the New Haven, Conn. builders.

Gradually the sharpie spread from the oystering in Long Island Sound to the Chesapeake Bay area, the Carolina sounds, south to Florida and the West Indies, and west to the Great Lakes. Strange to account, the use of the sharpie has also been traced to the Truckee River, Nevada (1867) and to France (1870). Its length varied from 20 to 28 feet in the 1840's, 35 feet in 1870's, and up to 60 feet or more in the 1890's. The usual rig was the leg-o-mutton sail during the early development of this craft, but gradually changed to a two-masted rig in the Sound area, while those in the Carolinas and Florida adopted the schooner rig. Occasionally the gaff rig was employed and a few had a regular sharpie rig on three masts.

As the use of the sharpie spread south of the Sound, it is only natural that we find them employed in the oyster business of the Chesapeake Bay, being introduced there about 1870. Since the water and weather conditions of the Bay are very similar to those of the Sound, the demand for these vessels existed in both places. The Bay area was very shallow in places, more so on the oyster beds and rivers than anywhere. However, the distance to market on the Bay was much greater than on the Sound, and thus the Gay oystermen required a larger and more burdensome craft. Mainly for this reason the Long Island Sound sharpie did not prove popular and gradually developed into a sharpie with a greater beam and more deadrise aft. The sharpie rig was changed at the same time to a sloop rig. This cousin of the sharpie became known as a Hampton flattie.

The Hampton flattie was a gaff-rigged sloop having a mainsail and jib without a bowsprit and seldom over thirty feet in length, flat bottomed forward but V-bottomed from about midships aft to the transom. The flatties rarely had a cabin. They were built in the vicinity of Bishop's Head, at the mouths of the Nanticoke River and Fishing Bay, on the Eastern Shore of Maryland.

In addition to the Hampton flattie, there were several intermediate types of boats developed that contributed to the final Chesapeake Bay skipjack. As an example, take the BLACK NANCY of the Western Shore of the Bay. It was similar to the flattie in hull, but the rig was different in that the main sail was not gaff-headed but was the true leg-o-mutton, and a bowsprit was added. This vessel was rarely found on the Eastern Shore. The clipper bow may have been the result of the influence of a few builders of the New York

52.
Plate 1
Hooper Island Skipjack

area that migrated to the Bay in the 1870's, or copied from the New England schooners that visited the Bay.

By approximately 1895, the skipjack as we know her came into her own. I say approximately because to date nothing has come to light to show when the first one was built. About this time the name sharpie was dropped and they were known as skipjacks or bateaux.

In any description of the present day Chesapeake Bay skipjack, it must be kept in mind that differences will be found, for each part of the Bay Shores and Islands developed characteristic models. The areas in which skipjacks were built extended from Tilgham Island, Md. to Pungoteague Creek on the Eastern shore of Virginia, the center being around Deal Island. A few were built on the Western Shore of Virginia.

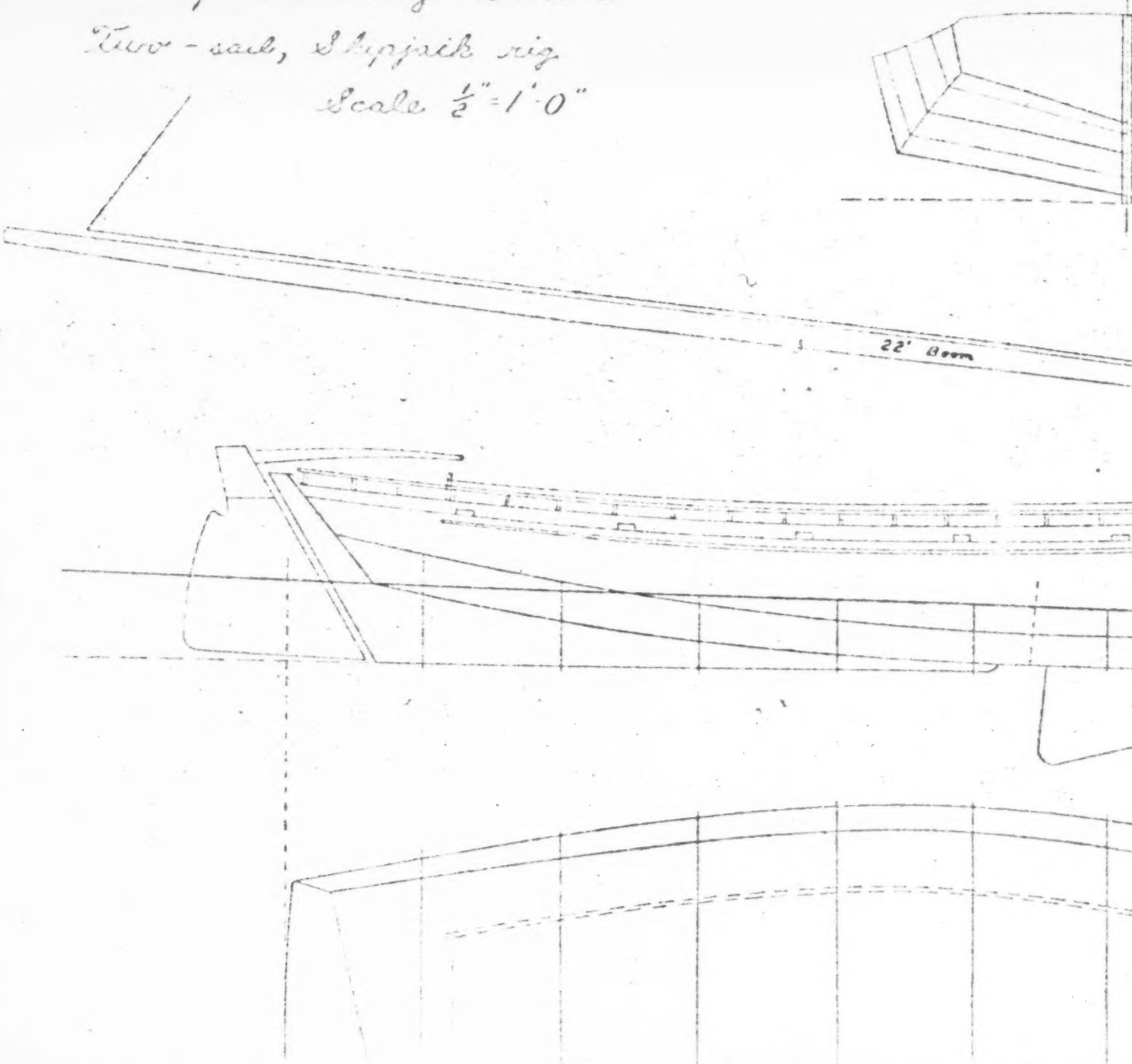
The Chesapeake Bay skipjack as we know her today is actually a skipjack-rigged bateau. A skipjack rig is one having a jib and leg-o-mutton mainsail, and a bateau is a dead rise or V-bottomed hull. Also, there are to be found the three-sail bateaux as well as the more common two-sail bateaux. The three-sail bateau is more common to the area of Hooper's Island and Bishop's Head than anywhere on the Bay. The only difference in the hulls of the two- and three-sail bateaux is that the hull of the latter is narrower in proportion to length. How the three-sail bateau was developed is questionable, but it is generally thought that the three-sail came about because a smaller crew could man her and she was handier in heavy weather. The weakness of this rig was the lack of power in very light weather and in dragging the oyster dredge over the bottom. The hull of the three-sail bateau was developed in the same manner as the two-sail bateau.

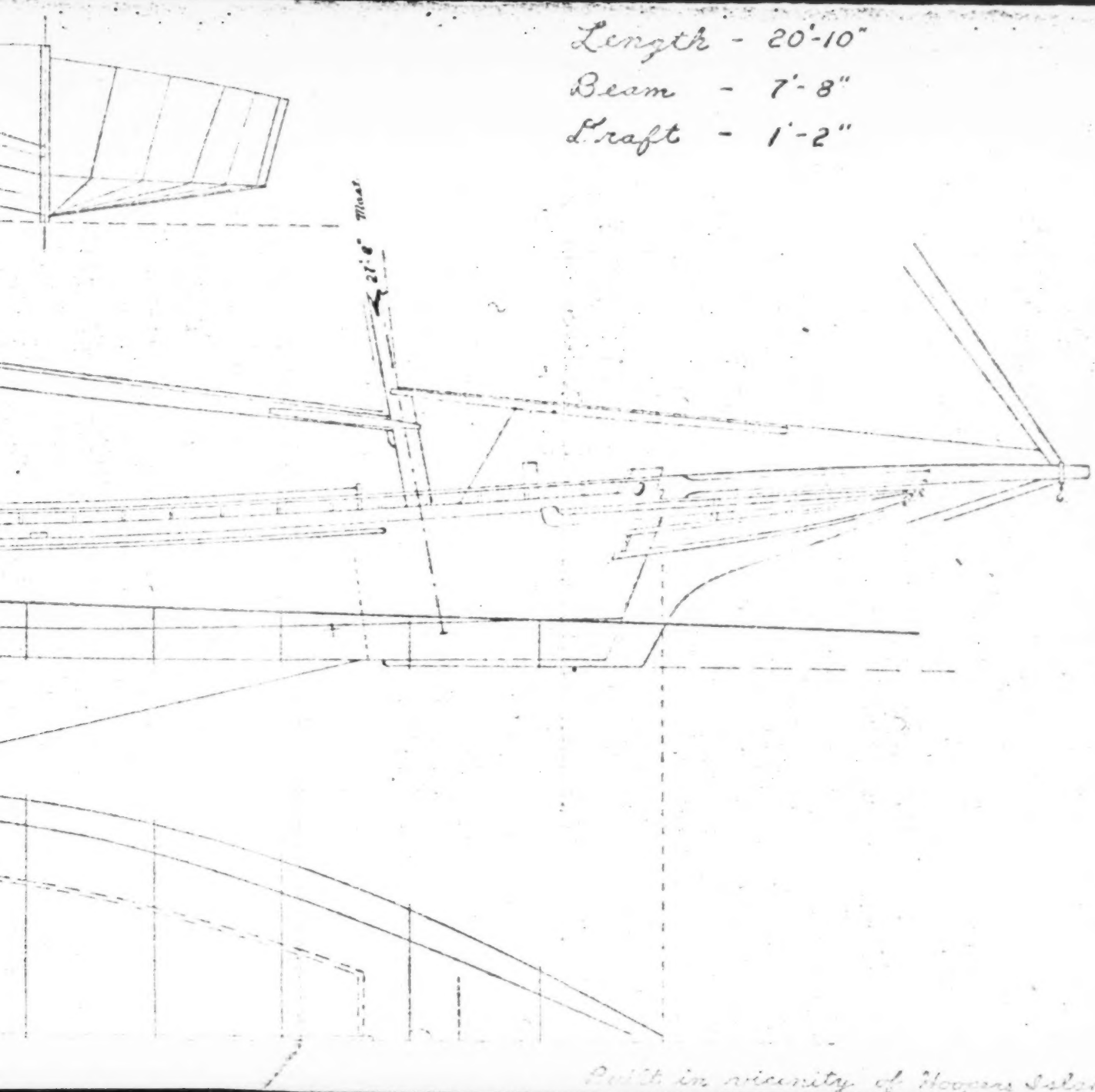
By 1900 the skipjack rigged bateau had reached the height of its development. The only major change made after this date was the elimination of the "sunk platform". This platform was really a cockpit running from abaft the mast to the stern. It had half decks on each side. The hand winder for working the oyster dredge was located in this cockpit. Also, the half decks were equipped with oar locks for use of sweeps during calms. With this arrangement, the crew could work the dredge or the sweeps without hitting their heads on the boom. The accompanying lines are a good illustration of a typical small bateau built about 1900-10. The open cockpit runs from just aft of the mast to the stern. In the severe winter months, a temporary cuddy was erected over the forward third of the cockpit. The dredging was done with a hand winder located amidships.

Chesapeake Bay Bateau

Two-sail, Skipjack rig

Scale ½" = 1'-0"





Length - 20'-10"
Beam - 7'-8"
Draft - 1'-2"

Built in vicinity of Hoopers Island.

About 1903 the gasoline driven winder and crane for the dredge was introduced. This eliminated the need for the "sunk platform" and from then on the bateaux were made flush decked. Also, the use of sweeps was discontinued about the same time, being replaced with the motor driven "push boat".

So, we may conclude that from about 1903 to date, the skipjack rigged bateau has undergone no major changes.

Numerous of these picturesque vessels are still afloat and engaged in the oyster business. Most of them are to be found on the Eastern Shore of Maryland. As long as the State of Maryland does not permit oyster dredging to be done by power boats, the bateaux will be used.

To my knowledge no more are being built and the most recently constructed was the ETHEL LYDIA, 16 tons, 40.8'x14.9'x4.4', built in 1936, but this date has not been verified.

It is questionable if any more will ever be built again. The men capable of doing this work are few and fast disappearing. The features of construction are only typical to the Chesapeake Bay area, so from there and only there can we hope to see one go down the ways.

SEA CANNON THROUGH THE AGES. PART III.

Winthrop Pratt, Jr.

CARRABINE. Falconer, 1776, says "a sort of musquetoon" . . . with a rifled barrel, with an iron rammer. Barrel about three feet long, including the stock, and had much greater range than the fusil or the musket. (He quotes from Le Blond "Elements of War".)

COEHORN. A small mortar introduced into France in 1679 by Coehorn, but invented by Holts in 1668, according to Hammersley. They were often used in the tops, their beds being the same as the sea mortars, except that they were smaller and of one piece. Their use extended well into the 18th century, and Hanson, in 1775, mentions a 4 2/5 inch coehorn used in 1754. Muller, 1775, also mentions them, and they were definitely used on American vessels. There is one in the museum at Hartford, Connecticut, with its original bed. Farrow says "a small bronze mortar", while Falconer, 1776 edition, says they were a sort of small mortar fixed on a swivel, and particularly used to discharge grenadoes, or cast bullets from close quarters in merchant

vessels when boarded. He also implies that their use was limited to merchant ships, at least at that time, but they were used on privateers and ships of war on occasion.

COLUBRINA (Colobrina - Colombrina). Italian from Medieval Latin coluber - a snake. First meaning - a large arquebus (see Caliver). Second meaning - a Culverin, a long cannon, often an 18-pounder.

COLUMBIAD, says Hammersley, was a "heavy gun, combining the qualities of the gun, howitzer, and mortar" and was invented by a Colonel Bomford. First used in the War of 1812, their use appears to have been confined to the galleys and sloops on Lake Champlain, and it may be significant that nearly all of those galleys so armed were built at Vergennes, Vermont. Records indicate that the 18-pounder was the most common, but the galley CENTIPEDE, 1814, had an 11-pounder, along with a 29-pounder gun. In 1844 a 10" and an 8" Columbiad were built on a new model, and in 1849 two 8" guns were cast at the Fort Pitt Works, one solid, and the other according to the plan of Lieut. Rodman. Other 8" and 10" guns were cast in 1845, 1851, and 1856. In 1857, Rodman recommended that the service Columbiads be discontinued, and in that year others were cast along the same lines, but with the removal of the base-ring and the swell of the muzzle. The next year, a new model was cast with the thickness of metal at the breech increased to 1 ½ calibers, the profile being unchanged, except for the substitution of a cascabel for the ratchet, all of which is credited to Rodman.

It would appear, then, that both the Rodman and Dahlgren guns were the descendants of the older Columbiad, which seems to have been a double-fortified cannon of extra large proportions for those times. The length of the bore was about 15 or 16 calibers on the early models. Hammersley says that Columbiads were used as late as 1880, and I think some were yet in service in 1898.

CONGREVE GUN (after Sir William Congreve). Hammersley says that the profile of a 24-pounder Congreve, 7 feet 6 inches long was from base-ring to muzzle astragal nearly a straight line, with one flat ring in front of the vent-field (taking the place of the vent-astragal) and another just forward of the trunnions (substituting for the usual second reinforce ring and ogee). Center of trunnions in line with lower surface of bore. Length of bore, 14.5 calibers. Thickness of metal at base ring, 1.5 calibers, and at the neck of the chase, 0.5 caliber. Farrow says it was obsolete before 1895.

CULVERIN (Culvering - Coulverine - etc.). From Latin coluber -

a serpent. The culverin probably dates from the 15th or very early 16th century, and the term was sometimes used as late as the 18th century. These guns, next to the cannon, were the heaviest used on shipboard and were often somewhat longer. Listed by Tartaglia in 1583 and by Bourne and Norton in 1585-7. Popular with all nations at the time of the Armada, they were often richly ornamented, and were cast in both iron and bronze. Iron culverins of English make were not ornamented, but were "plain almost to austerity", according to ffoulkes. Various contemporary writers class culverins as follows: Nuremburg or Narborough culverins 12 to 13 feet long, then whole culverins, culverins, culverin bastards, and demi-culverins, with occasional mention of a quarter-culverin. Whole culverins were at first called "dragon-drakes," or "culverin-drakes," drake signifying a "whole" gun. Tartaglia lists one in 1583, as 15 ft. long, weighing 13,000 lbs., and firing a 120 lb. shot. This is the heaviest and largest example I have found, being even above the largest cannon of the times, but it is doubtful if it could have been used on a 16th century ship, except possibly as a lower deck stern-chaser, and even then it seems impossible. We might note here, that the quarter-culverin is really the same as a saker. St. Remy, writing in 1745 of pieces "que l'on fondoit anciennement" lists a coulverine 16 ft. long, a 20 pdr., of 7,000 lbs. weight, and a demi-coulverine, 13 ft. long, a 10 pdr., of 3850 lbs.

CURTALL (Curtald, Curtowe, Courtant, and Italian - Cortaldo). Derives from the Italian "cort" - "aldo" and meaning similar to "curtail". For example: a cutlass was a "curtal-axe" or "curtlax," hence "cutlass;" - actually a gun that was "cut short." A short piece of artillery, or short bombard or "pot-gun." See also "Bombard." Do not confuse with "Courtel" which was an ancient type of knife-dagger, according to Farrow. The curtall was a short, heavy gun of the early 16th century, designed for high-angle fire, believed by Rowan to be of the perrier type. Similar to the bombard, but lighter and shorter, often of bronze and sometimes of iron. In the inventory of the "Henry Grace a' Dieu" (the Great Harry) of 1514 a "curtall of brasse upon IV wheles" is mentioned, showing that the wheeled carriage was even then in use. I have no other description aside from Tartaglia who in 1583, says there were 45 pdrs., 7 ft. long, weighing 2740 lbs., and who also mentions 30 pdrs.

To be continued.

57

N O T E S – Q U E R I E S – A N S W E R S

100 TON ARMSTRONG GUN

As to the Armstrong, 100 ton gun, I am afraid that I must return your "salute", but will not "strike my colors". I respectfully refer you to "Navies of the World" by Lieut. Edw. W. Very, U. S. N., New York, 1880, and "A Naval Encyclopaedia", L. R. Hamersly & Co., 1884 for information on this piece as follows:

Very lists (under English Ordnance) a 17 inch, 100 ton gun, of Armstrong improved construction, and says it was 392 inches over all (32' 8") in length; weight of gun 229,000 lbs.; preponderance, 8,960 lbs. This was a turret gun, firing a "chilled" projectile of 2,000 lbs. entire weight. The lieutenant further states that the Armstrong construction was the first type of rifled gun in the British Navy, and was of both breech and muzzle loading types. The original breech loader ceased to be made in 1864, but many of the type were still in service in 1880. Very also says that the 100 ton muzzle loader was in use in 1880, and that the modified breech loader (100 ton gun) had been adopted in Italy.

Hamersly says that the light Armstrong gun was adopted for field service in England in 1858, and that in 1859, 40, 70 and 110 pounders were "completely adopted" for the navy. The failure of these guns as breech loaders led to the substitution of muzzle loaders. It is further stated (if I may be permitted to omit a long technical discussion about the fabrication of these guns) that Armstrong first proposed the idea of rifled cannon for the British Government in 1854 and the following sizes are mentioned – a nine inch 12 ton gun, and a 100 ton gun; also the Frazer gun (a modified Armstrong) was made in 7" and 8" as well as 9" and an 80 ton type.

To return to Very – he lists one ship only as being equipped with the 17 inch Armstrong (100 ton) gun, and that is the sea-going turret ship "Conqueror." Although he gives measurements and specifications of all others, this one alone is not so listed – apparently a "military secret," but she is listed as having four 100 ton guns! In regard to the Italian Navy he is more specific. As of 1880, he lists the "Citadel Ships" "Dandolo" and "Duilio" of 340 ft. length (between perpendiculars) and 65 ft. beam and 26 ft. draught, of 10,650 tons displacement, 14 knots maximum speed, built in 1876 and 1878 respectively, as having each four 17" (100 ton) Armstrong guns and four 4 3/4" guns. He also lists, in the same class, the "Italia" and "Lepanto," of 400 ft. x 74 ft. x 30 ft.;

13,480 tons displacement, and 15 knots (same armament) as "now building." These ships had two 100 ton guns in each turret! At this time, the 15 inch smooth-bore was about the largest gun in the U. S. Navy (there being seven ships in service and eight building). Each of these fifteen ships of 2 such guns apiece, most of the ships just over 200 ft., with one 312 footer of 50 ft. beam, and 21½ ft. draught - 4,500 tons displacement. All are listed at 8 knots maximum speed!

- Winthrop Pratt, Jr.

SAILING GUNBOATS OF THE UNITED STATES NAVY

The sailing gunboats referred to in Mr. Yarnall's article did not fight in the Mediterranean - the war was over when they got there. The speculation that Hull, Decatur and others evidently were assigned to building gunboats because their ships were blockaded is also in error. There were no ships blockaded at the time that these gunboats were being built. The gunboat policy went out when Madison came in. That was the end of it. No one can truthfully say that Jefferson was not responsible for the gunboat policy. Jefferson, while Minister to France, was one of the first to urge the building of a navy when trouble was kicking up in the Mediterranean in the 1790's, and had many reasons when he took office for wanting only a navy for defense when he was president. Chapelle makes the statement that Jefferson was not entirely responsible for the gunboat policy. The President of the United States must be held responsible for everything in his administration unless he goes on record as opposing it. Jefferson was convinced that gunboats were the best craft for defense and gunboats it was.

- Bruce Grant

BELAYING PINS

It was usual to find heavy iron belaying pins for topsail halliards and the sheets of the courses. For clew garnets, bunt and leechlines of the courses, topsail clew and spilling lines, all teak wood pins of the same size. Teak pins for topgallant running gear, royal and sky slightly smaller.

- Bill Adams

SHIP MODEL RIGGING

For my rigging I buy cuttyhunk fish line, either white or green and dye it black, then let it dry with heavy weights on it to take out the stretch. I then wax it with the old sailmaker's mixture of beeswax, Stockholm tar and tallow in equal parts and never have any trouble with it going slack with the weather. I found out by experience not to use cotton thread for standing rigging and never to paint any rigging after it is set up.

- Fred S. Rice

A NOTE ON W. J. PIERCE

W. J. Pierce is listed as a wood engraver in the Boston Directory of 1859, the address being given as 22 Winter Street. If I am not mistaken this man did work for the old "Gleason's Pictorial" and possibly other magazines. The name appears as both J. W. and W. J. Pierce. I do not find him in later editions and can only suppose that he retired from active business, or that he may have moved away from Boston.

- Winthrop Pratt, Jr.

SHIPS NAMED AFTER BENJAMIN FRANKLIN

Information wanted about U. S. Navy ships named FRANKLIN. Any stories of action or duty concerning the armed schooner FRANKLIN which was in the service in 1775; the brig FRANKLIN, that was brought into the Navy in 1805; and the 74-gun line-of-battle ship FRANKLIN laid down in 1815 and carried on Navy Register until 1915. Copies of engravings or plates of both the first two FRANKLINS are desired.

Harry D. Hamilton, 3800 Granada Ave., Whittier, Calif.

SCHOONER RIG CIRCA 1800

Information desired on the rigging of a schooner square sail of the 1800-1812 period. It was certainly not rigged in the manner of a ship's yard, and I have been unable to locate any real information about it.

Richard E. Lawton, 2485 Devoe Terrace, Bronx 63, New York

SECRETARY'S NOTES

We welcome to membership Mr. Bill Adams, of Dutch Flat, California and Captain Leighton Robinson, of Mill Valley, California. Bill Adams, a short story writer, who has been writing sea stories for many years is represented in the O'Henry Memorial Award Best of 1927, 1928 and 1933 and the Edward O'Brien Best of 1923. Captain Robinson, a graduate of the schoolship CONWAY in 1887, was Master of the MELANOPE, during which time she made a 44-day run from San Francisco to Sydney. Captain Robinson is now retired as Chief Deputy in the San Francisco office of the U. S. Shipping Commissioner.

News comes of the organization of a group known as INTERNATIONAL MARITIME EXCHANGE, headed by Member J. Ferrel Colton, the purposes and plans of which are very similar to those of the GUILD. The divided effort is to be regretted, but it is heartening to note the widespread interest in nautical research.